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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/055,258

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Sarah Barber

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01/26/2006

Rockwell Collins, Inc.  
Attention: Kyle Eppele  
M/S 124-323  
400 Collins Rd. NE  
Cedar Rapids, IA 52498

EXAMINER

CHUONG, TRUC T

ART UNIT

PAPER NUMBER

2179

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/055,258

Applicant(s)

BARBER ET AL.

Examiner

Truc T. Chuong

Art Unit

2179

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This communication is responsive to Amendment, filed 10/17/05.

Claims 1-14 are pending in this application. Claims 1, 5, and 8 are independent claims.

This action is made final.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

#### ***Claim Rejections - 35 USC § 102***

1. Claims 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Briffe et al. (U.S. Patent No. 6,112,141).

As to claim 8, Briffe teaches an avionics system having displays with display configurations pilot-selected for a phase of flight of an aircraft and reconfigurable for each phase of flight comprising:

a flight display for storing and displaying stored phase of flight display configurations for each phase of flight of the aircraft (the flight plan can be stored in the memory and displayed on the display screen, e.g., col. 3 lines 10-30, and col. 7 lines 58-67, and fig. 21); and

a cursor control panel (e.g., col. 11 lines 56-60, and col. 12 lines 5-43) connected to the flight display for changing from one stored phase of flight display configuration to another stored phase of flight display configuration when selected by the pilot for a phase of flight and for reconfiguring the display configuration for each phase of flight (the existing flight plan displayed on the screen can be modified by the crew with new parameters, e.g., col. 39 lines 30-63).

As to claim 9, Briffe teaches the avionics system of claim 8 wherein the flight display further comprises:

a middle window for displaying a pilot-selectable display configuration; a lower window for displaying a pilot-selectable display configuration; and line select keys for selecting the middle window and lower window display configuration (e.g., col. 31 lines 10-55, and fig. 21).

### ***Claim Rejections - 35 USC § 103***

2. Claims 1-7, 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Briffe et al. (U.S. Patent No. 6,112,141) in view of D'Hooge et al. (U.S. Patent No. 6,636,354 B1).

As to claim 10, Briffe teaches the avionics system of claim 9 wherein the cursor control panel further comprises phase of flight quick access pushbuttons for selecting a stored phase of flight configuration and for reconfiguring a stored phase of flight configuration into a new phase of flight configuration by selecting the new configuration with controls on the cursor control panel and pressing a phase of flight quick access pushbutton for storing the new configuration (pushbutton 518 for changing the ALT setting, e.g., col. 24 lines 27-34, col. 26 line 66-col. 27 line 16 and fig. 20); however, Briffe does not teach of pressing the pushbutton for a predetermined time to store a new setup. D'Hooge clearly shows that the user may press and hold the switch button for an extended period of time to indicate that the feature is desired (e.g., col. 9 line 66-col. 10 line 3). It would have been obvious at the time of the invention, a person with ordinary skill in the art would want to have the pressing button for a period of time of D'Hooge in the Flight Management System of Briffe to ease the user to distinguish between a normal or a desired selection which the user really wants to operate.

As to claim 11, the modified Briffe teaches the avionics system of claim 10 wherein the cursor control panel further comprises:

although, Briffe teaches a climb quick access pushbutton (518) and soft buttons (the soft buttons for setting CLIMB, DESC, and cruise speed, e.g., col. 28 lines 35-57, col. 32 line 10 and lines 50-59) for selecting a climb phase of flight display configuration and for reconfiguring the climb phase of flight display configuration, selecting a cruise phase of flight display configuration and for reconfiguring the cruise phase of flight display configuration, and selecting a descend phase of flight display configuration and for reconfiguring the descend phase of flight display configuration (pushbutton 518 for changing the ALT setting, e.g., col. 24 lines 27-34, col. 26 line 66-col. 27 line 16 and fig. 20); Briffe does not show that there are three separate pushbuttons for climbing, cruising, and descending as claimed. It would have been obvious at the time of the invention, a person with ordinary skill in the art would modify the Flight Management System of Briffe in view of D'Hooze with the separate pushbuttons to provide convenience and improve visibility for the flight crew.

As to claims 7, and 12-14, the modified Briffe in view of D'Hooze teaches the method of claim 11 wherein each of the steps of selecting the climb phase of flight configuration, the cruise phase of flight configuration, and descend phase of flight configuration are selected (e.g., col. 24 lines 27-34, col. 26 line 66-col. 27 line 16, and col. 28 lines 35-57, col. 32 line 10 and lines 50-59); and Briffe also show a middle window display configuration from the group consisting of a checklist index, a flight management system text, and a vertical terrain profile and a lower window display configuration from the group consisting of a present position, plan, datalink, charts, traffic, and maintenance formats (Briffe clearly teaches the in fig. 21 that the middle

window 556 shows the checklist such as NORM, WET, DRY, etc. and the lower window 552 shows position at 18000 FT).

As to claim 1, the modified Briffe in view of D'Hooge teaches a method of selecting, displaying, and reconfiguring display configurations on an avionics display in an avionics system on an aircraft for different phases of flight of the aircraft comprising the steps of:

selecting a prestored climb display configuration for display on the avionics display with a climb quick access pushbutton on a cursor control panel when the aircraft is in a climb phase of flight (pushbutton 518 for changing the ALT setting, e.g., col. 24 lines 27-34, col. 26 line 66-col. 27 line 16 and fig. 20, the soft buttons for setting CLIMB, DESC, and cruise speed, e.g., col. 28 lines 35-57, col. 32 line 10 and lines 50-59, and see rejection of claim 11 above);

reconfiguring the prestored climb display configuration into a new climb display configuration with controls on the cursor control panel and on the avionics display (e.g., col. 10 lines 3-53);

selecting a prestored cruise display configuration for display on the avionics display with a cruise quick access pushbutton on the cursor control panel when the aircraft changes to a cruise phase of flight (pushbutton 518 for changing the ALT setting, e.g., col. 24 lines 27-34, col. 26 line 66-col. 27 line 16 and fig. 20, the soft buttons for setting CLIMB, DESC, and cruise speed, e.g., col. 28 lines 35-57, col. 32 line 10 and lines 50-59, and see rejection of claim 11 above); and

selecting a prestored descend display configuration for display on the avionics display with a descend quick access pushbutton on the cursor control panel when the aircraft changes to a descend phase of flight (pushbutton 518 for changing the ALT setting, e.g., col. 24 lines 27-34, col. 26 line 66-col. 27 line 16 and fig. 20, the soft buttons for setting CLIMB, DESC, and cruise

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speed, e.g., col. 28 lines 35-57, col. 32 line 10 and lines 50-59, and see rejection of claim 11 above);

although, Briffe teaches pressing the climb quick access pushbutton for storing the new configuration (pushbutton 518 for changing the ALT setting, e.g., col. 24 lines 27-34, col. 26 line 66-col. 27 line 16 and fig. 20); Briffe does not teach of pressing the pushbutton for a predetermined time to store a new setup. D'Hooze clearly shows that the user may press and hold the switch button for an extended period of time to indicate that the feature is desired (e.g., col. 9 line 66-col. 10 line 3). It would have been obvious at the time of the invention, a person with ordinary skill in the art would want to have the pressing button for a period of time of D'Hooze in the Flight Management System of Briffe to ease the user to distinguish between a normal or a desired selection which the user really wants to operate.

As to claim 2, Briffe teaches the method of claim 1 further comprising the steps of:  
reconfiguring the prestored cruise display configuration into a new cruise display configuration with controls on the cursor control panel and the avionics display (setting the cruise speed, e.g., col. 28 lines 35-57, col. 32 lines 10-59); and

pressing the cruise quick access pushbutton for a period of time to store the new cruise display configuration (e.g., col. 32 lines 10-59).

As to claim 3, Briffe in view of D'Hooze teaches the method of claim 1 further comprising the steps of:

reconfiguring the prestored descend display configuration into a new descend display configuration with controls on the cursor control panel and the avionics display (pushbutton 518 for changing the ALT setting, e.g., col. 24 lines 27-34, col. 26 line 66-col. 27 line 16 and fig. 20,

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the soft buttons for setting CLIMB, DESC, and cruise speed, e.g., col. 28 lines 35-57, col. 32 line 10-59); and

pressing the descend quick access pushbutton for a period of time to store the new descend display configuration (e.g., col. 24 lines 27-34, col. 26 line 66-col. 27 line 16 and fig. 20, the soft buttons for setting CLIMB, DESC, and cruise speed, e.g., col. 28 lines 35-57, col. 32 line 10-59).

As to claim 4, the modified Briffe teaches the method of claim 1 further comprising the steps of selecting the new climb display configuration on the avionics display with the climb quick access pushbutton on the cursor control panel (e.g., col. 11 lines 56-60, col. 12 lines 5-43, and e.g., col. 39 lines 30-63).

As to claim 5, Briffe in view of D'Hooze teaches a method of selecting, displaying, and reconfiguring display configurations on an avionics display in an avionics system on an aircraft for different phases of flight of the aircraft comprising the steps of:

selecting prestored display configurations for display on the avionics display with quick access pushbuttons on a cursor control panel in accordance with the aircraft phase of flight (the flight plan can be stored in the memory and displayed on the display screen, e.g., col. 3 lines 10-30, and col. 7 lines 58-67, and fig. 21);

reconfiguring the prestored display configurations into new display configurations with controls on the cursor control panel and the avionics display (the existing flight plan displayed on the screen can be modified by the crew with new parameters, e.g., col. 39 lines 30-63); and

pressing the quick access pushbutton for a period of time to store the new display configuration (note the rejection of claim 10 above).



As to claim 6, this is the equivalent to claim 11 above; therefore, rejected under a similar rationale.

### ***Response to Arguments***

3. Applicant's arguments filed 10/17/05 have been fully considered but they are not persuasive.

Applicant has argued and Examiner disagrees with the following reasons:

*The aircraft control display with its control flight plan values of Briffe are preset and cannot be changed or reconfigured.*

Briffe clearly teaches that the pilot always has the ability to force the use of values he wants (e.g., col. 31 lines 14-15). The values are Altitude, Slope, Speed, etc. (e.g., col. 42 lines 16-47), which can be changed/reconfigured to overwrite the preset flight plan values (e.g., col. 31 lines 10-55), and the new flight values/parameters can be stored as a new flight plan (e.g., col. 32 lines 29-67, and col. 33 lines 1-15, lines 34-38). In addition, the pilot can directly display the results of the modifications and, if so desired, may activate the flight plan with new parameters, or recalling the existing flight plan (or autopilot) (col. 29 lines 39-51, and col. 42 lines 42-57). Therefore, the system permits the pilot to enter data commanding the changes in aircraft status such as a command climb, descend, ascend, cruise speed, vertical speed, etc., and the exiting flight plan displayed on the screen can be modified by the crew with new flight

values/parameters is similar to reconfigure the existing values as claimed by the Applicant.

***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Truc T. Chuong whose telephone number is 571-272-4134. The examiner can normally be reached on M-Th and alternate Fridays 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Truc T. Chuong

01/22/06



**WEILUN LO**  
**SUPERVISORY PATENT EXAMINER**